

**REMARKS****Status of Claims:**

Claims 1-19 are pending in the application. Each of the pending claims defines an invention that is novel and unobvious over the cited art. Favorable consideration of this case is respectfully requested.

**Disclosure Supporting the Instant Amendment:**

Claim 1 is hereby amended to delete the previously-added recitation “substantially the absence of exogenous photoinitiators.”

Claim 13 is hereby amended to delete the previously-added recitation “and the substantial absence of exogenous photoinitiators.” The present amendment restores Claims 1 and 13 to their respective states as originally filed.

Claim 5 is amended to recite “dicyclohexylmethane diisocyanate,” the chemical name for the trade name “Desmodur W” recited in the claims. The amendments are believed not to comprise new matter.

**Claim Objections:**

Claim 5 was objected to as reciting a trade name. Claim 5 is hereby amended to recite the chemical name corresponding to the objected to trade name.

**Rejections Under 35 U.S.C. § 112, 1<sup>st</sup> Paragraph:**

Claims 1-24 were rejected under 35 U.S.C. § 112, 1<sup>st</sup> Paragraph, as containing subject matter which was not described in the specifications in such a way as to reasonably convey to one skilled in the relevant art that the inventor, at the time the application was filed, had possession of the claimed invention. The Examiner objected that the recitation “the substantial absence of exogenous photoinitiators was not recited in the specification in relation to the invention.

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The Applicants specifically do not admit that the objected to recitation was unsupported. However, Claims 1 and 13 are hereby amended to delete the recitations in question and to restore the Claims to their original state and their original scope.

**Rejection Under 35 U.S.C. § 102(b), or in the Alternative, Under 35 U.S.C. § 103(a):**

Claims 1 and 6-19 were rejected under 35 U.S.C. § 102(b) as being anticipated by, or in the alternative, as obvious over Nerad (5,641,426).

Rejection under 35 U.S.C. § 102 requires the prior art disclose each and every recitation of the claimed invention.<sup>1</sup> In determining anticipation, no claim recitation may be ignored.<sup>2</sup> Anticipation requires the disclosure, in a prior art reference, of each and every recitation as set forth in the claims.<sup>3</sup> There must be no difference between the claimed invention and reference disclosure for an anticipation rejection under 35 U.S.C. § 102.<sup>4</sup> The evidentiary record fails to teach each recitation of the present invention in view of specific differences in the chemical compositions disclosed by Nerad and the present invention.

The Examiner cites Nerad as disclosing "vinyl-ether-based matrix materials." The present invention relates to "vinyl-ether terminated urethanes." Nerad is silent as to "vinyl-termination." However, Nerad discloses vinyl-ether urethanes. Nerad defines suitable vinyl ethers in Claim 1:

1. An optically responsive film comprising liquid crystal dispersed in a crosslinked polymer matrix comprising the reaction product of an isotropic polymerizable mixture that includes at least one multi-functional vinyl ether, said vinyl ether having two or more polymerizable carbon-carbon double bonds, each of which is linked via a single bond to an oxygen atom where the other group bonded to the oxygen atom is neither a carbonyl group nor a hydrogen atom.

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<sup>1</sup> See MPEP § 706.02.

<sup>2</sup> See *Pac-Tex, Inc. v. Amerace Corp.*, 14 USPQ2d 1871 (Fed. Cir. 1990).

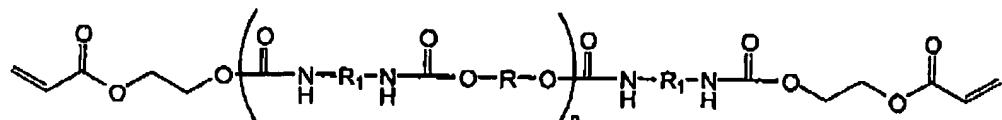
<sup>3</sup> See *Titanium Metals Corp. v. Banner*, 227 USPQ 773 (Fed. Cir. 1985); *Orthokinetics, Inc. v. Safety Travel Chairs, Inc.*, 1 USPQ2d 1081 (Fed. Cir. 1986); and *Akzo N.V. v. U.S. International Trade Commissioner*, 1 USPQ2d 1241 (Fed. Cir. 1986).

<sup>4</sup> See *Scripps Clinic and Research Foundation v. Genentech, Inc.*, 18 USPQ2d 1001 (CAFC 1991) and *Studengesellschaft Kohle GmbH v. Dart Industries*, 220 USPQ 841 (CAFC 1984).

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Figure 2 depicts a typical urethane of the present invention:

Figure 2.  
Representative urethane (schematic)



Nerad discloses vinyl ethers having two or more polymerizable carbon-carbon double bonds, each of which is linked via a single bond to an oxygen atom where the other group bonded to the oxygen atom is neither a carbonyl group nor a hydrogen atom.

The vinyl urethanes of the present invention are not anticipated by Nerad. The vinyl ether of Nerad requires the carbon-carbon double bonds to be linked via a single bond to an oxygen atom, but the carbon-carbon-double bonds of the present invention are linked to carbon, not to oxygen. Nerad requires that the ether oxygen is not linked to carbonyl, whereas the ether oxygen of the present invention is carbonyl-linked.

Nerad discloses a separate and distinct chemistry from that claimed by the present invention. In view thereof, the Applicants respectfully request the Examiner withdraw the rejection as moot.

Rejections Under 35 U.S.C. § 103(a):

Claims 1-19 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Nerad in view of Hagstrom (5,578,693),

To establish *prima facie* obviousness of a claimed invention, all the claim recitations must be taught or suggested by the prior art. *In re Royka*.<sup>5</sup> All words in a claim must be considered in judging the patentability of that claim against the prior art. *In re Wilson*.<sup>6</sup> (MPEP § 2143.03). When evaluating the scope of a claim, every recitation

<sup>5</sup> *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974).

<sup>6</sup> *In re Wilson*, 424 F.2d 1382, 165 USPQ 496 (CCPA 1970).

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in the claim must be considered. See e.g. *In re Ochiai*.<sup>7</sup> (MPEP § 2144.08). The evidentiary record fails to teach each recitation of the present invention.

As discussed above, the chemistry of vinyl urethanes of the present invention are not anticipated by Nerad. The vinyl ether of Nerad requires the carbon-carbon double bonds to be linked via a single bond to an oxygen atom, but the carbon-carbon-double bonds of the present invention are linked to carbon, not to oxygen. Nerad requires that the ether oxygen is not linked to carbonyl, whereas the ether oxygen of the present invention is carbonyl-linked. Hagstrom cannot supply the missing teaching because Nerad relates to the linkages within the vinyl urethanes and not to the starting materials

Nerad discloses a separate and distinct chemistry from that claimed by the present invention. Hagstrom cannot be used to change the chemistry required by Nerad. In view thereof, the Applicants respectfully request the Examiner withdraw the rejection as moot.

**Conclusion:**

In view of the above, consideration and allowance are respectfully solicited.

Accordingly, it is respectfully requested that the foregoing amendments be entered, that the application as so amended receive an examination on the merits, and that the claims as now presented receive an early allowance.

In the event the Examiner believes an interview might serve to advance the prosecution of this application in any way, the undersigned attorney is available at the telephone number noted below.

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<sup>7</sup> *In re Ochiai*, 71 F.3d 1565, 37 USPQ2d 1127 (Fed. Cir. 1995).

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The Commissioner is hereby authorized to charge any fees or credit any overpayment associated with this communication, including any extension fees or fees for the net addition of claims, to Deposit Account No. 22-0185.

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Respectfully submitted,



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